



FINAL

Former Naval Station Treasure Island Restoration Advisory Board (RAB) Meeting Minutes

Meeting 184

16 August 2016

Community Restoration Advisory Board (RAB) Members in attendance:

John Gee, Becky Hogue, Alice Pilram (Community RAB Co-Chair), Dale Smith

Department of the Navy and Regulatory Agency RAB Members in attendance:

Keith Forman, Navy RAB Co-Chair

Remedios [Medi] Sunga, California Department of Toxic Substances Control (DTSC)

Myriam Zech, San Francisco Bay Regional Water Quality Control Board (Water Board)

Other Navy and Regulatory Staff and Consultant Representatives in attendance:

Dave Clark, Navy

Yashekia Evans, Tetra Tech, Inc.
(Tetra Tech)

Bill Franklin, Navy

Katie Henry, Tetra Tech

Jim Leather, Space and Naval
Warfare Systems Center
(SPAWARSYCEN)

Mukesh Mehta, Navy

Kimberly Noble, Navy

Jessica O'Sullivan, Tetra Tech

Nathan Schumacher, DTSC

Ross Steenson, Water Board

Tommie Jean Valmassy, Tetra Tech

Chris Yantos, Navy

Public Guests in attendance:

Bob Beck, Treasure Island

Development Authority (TIDA)

Carol Harvey, journalist

Thomas Rotter, resident

Lajuana Tucker, resident

Melanie Williams, resident

Welcome Remarks and Agenda Review

Keith Forman (Base Realignment and Closure [BRAC] Environmental Coordinator [BEC]) opened the August 2016 RAB meeting for the Former Naval Station Treasure Island (NAVSTA TI), held at the Casa de la Vista (Building 271) on Treasure Island (TI). Mr. Forman introduced participants. He reminded the group that this is the final meeting at the Casa de la Vista because the building will be demolished as part of the city's redevelopment. In the future, meetings will be held in Building 1, located just to the right after entering the main gate on TI.

Alice Pilram (Community RAB Co-Chair) reviewed the agenda (Attachment A). Mr. Forman noted a handout, titled Responses to Questions, Restoration

TRIE-2205-0058-0243

Advisory Board Meeting, Former Naval Station Treasure Island, 21 June 2016 (Attachment B), has been provided in direct response to questions asked during the June RAB meeting about the chemistry of Site 24

Old Business – RAB Minutes Approval

Minutes for meeting 183, June 2016, were presented for approval. John Gee (RAB member) and Dale Smith (RAB member) requested minor edits. The RAB voted to approve the minutes with the edits incorporated.

Old Business – BRAC Cleanup Team Update

Nathan Schumacher (DTSC Community Involvement Specialist) provided an update on some of the work DTSC and the California Department of Public Health (CDPH) have done since the last RAB meeting. Radiological documents reviewed include revisions and responses to comments (RTC) on the Force Main Radiological Survey Report; Building 233 Catch Basin Removal and Radiological Survey Report; Building 233 Downstream Waste Water Line Removal and Radiological Survey Report; Avenue N Wood Stave Pipe Storm Drain Removal Report; and RTCs on the Site 6 Radiological Survey Report. DTSC also reviewed the following non-radiological reports: RTCs on the Site 24 Remedial Design; 2015 Groundwater Monitoring Report for Sites 6, 12, 21, and 24; the Navy's proposal to destroy wells on TI, the Covenant to Restrict Use of Property at Site 27, and the Site 12 fact sheet.

Myriam Zech (Water Board) said her agency reviewed the following documents: RTCs on the Finding of Suitability to Transfer 2016; 2015 Groundwater Monitoring Report for Sites 6, 12, 21, and 24; the Site 24 Remedial Action Work Plan; and the RTCs on the Site 24 Remedial Design.

New Business – Site YF3 Investigation

Mr. Forman introduced the presenters, Mukesh Mehta (Navy), Jim Leather (SPAWARSYCEN), and Katie Henry (Tetra Tech). Mr. Mehta introduced the presentation on the petroleum cleanup at Site YF3 (Attachment C). Mr. Mehta gave his background; he is a professional geologist and certified engineering geologist registered in California, Oregon, and Washington.

Dr. Leather said he holds a Ph. D. in oceanography, and his area of interest is sediment geochemistry. His group, SPAWARSYCEN, assists in demonstrating and implementing innovative technologies at various sites. In the Bay Area specifically, he has worked at Former Naval Air Station Alameda and Former Naval Shipyard Hunters Point.

Ms. Henry said she is the technical lead for the Battelle-Tetra Tech team on the Site YF3 project. She is a project manager and an ecological risk assessor and has worked on various NAVSTA TI projects for 10 years. In addition to her work at

Tetra Tech, Ms. Henry has a background in aquatic toxicity testing, which is a component of the Site YF3 project.

Mr. Mehta said Site YF3 is located on the northern side of Yerba Buena Island (YBI), which is now owned by TIDA. In 1945, a heating plant, former Building 214, was located at Site YF3. There was a 10,000-gallon capacity aboveground storage tank (AST), known as AST 214, in the building. Building 214, AST 214, and the associated fuel lines were demolished and removed in the 1980s. Formerly, there were piers at the site that extended into Clipper Cove, which were used for refueling and transporting oil to vessels.

Mr. Mehta showed recent photographs of the site and pointed out most of the shoreline is covered with algae-covered cobbles and that sediment along the shoreline is exposed at low tide. Mr. Mehta reviewed previous investigations, including petroleum investigations from 1994-2000; sampling in 2012; and a screening-level ecological risk assessment (SLERA) in 2015. The final recommendation in the SLERA was to collect additional data and conduct a baseline ecological risk assessment (BERA).

Currently, the Navy is planning to conduct an additional investigation along the shoreline of Site YF3 to better understand the nature and extent of petroleum contamination in pore water and sediments. Mr. Mehta explained pore water is the water that fills the empty spaces, or pores, in sediment. Based on the field investigation and the results of the BERA, the next steps will either be site closure or some type of further action.

Ms. Henry said there are two phases to the project. Phase I will involve Dr. Leather's team working with the Trident Probe to collect pore water and help the team determine where fresh groundwater from YBI might be discharging into Clipper Cove. Phase II consists of collecting sediment samples.

Dr. Leather described the Trident Probe and how it will be used. The Trident Probe contains metal rods that are pushed into the sediment. Those metal rods test two parameters: temperature and electrical conductivity. Testing the conductivity will tell whether the water is salty or fresh. If the water is salty, it is from the bay; if the water is fresh, it is groundwater. That information may indicate where petroleum could be carried to the bay from groundwater at the site.

Dr. Leather reviewed the features of the Trident Probe, noting it has been modernized since it was first created in 2005. Improvements include a global positioning system (GPS) and an increase in capacity from two to six probes, which allows for multiple groundwater sampling probes to be used at the same time. Dr. Leather explained that the Trident Probe allows the field team to collect

the pore water that is located between the grains of sediment. Samples will be collected in a grid pattern centered around former AST 214. Dr. Leather said that the samples collected will be analyzed to better define the extent of petroleum contamination and a couple of the samples will be “fingerprinted” to characterize the extent of weathering and the source of the petroleum.

Ms. Henry said the Battelle-Tetra Tech team will conduct sediment sampling as Phase II approximately 1 month after the work with the Trident Probe is complete, so the analytical data can be reviewed. A small drill rig will be used to collect samples from locations accessible at low tide. In some locations that extend farther into the cove, where the sediment is not as stable and may even be under water at low tide, a barge-mounted vibracore may be used to collect samples. In addition, a larger amount of sediment (a bucket as opposed to a jar) needs to be collected in five locations for biological testing conducted for the BERA.

Ms. Henry said the sediment will be analyzed for total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAH) and volatile organic compounds (VOC). A limited number of samples will also be used to conduct sediment toxicity and bioaccumulation tests. A laboratory will expose benthic organisms, such as worms, to the sediments and observe effects on survival and growth. A bioaccumulation test will also be conducted on clams and worms to see if the contaminants in the sediment are moving up the food chain.

Ms. Henry showed a map of the planned sampling (slide 16). The map is a draft and will be included in the draft work plan that will be issued soon. Ms. Henry noted the site poses logistical challenges because of the rocky, slippery terrain, limited accessibility, and the limitations imposed by the tidal cycle. Site access must also be coordinated with TIDA, which now owns the property.

Mr. Mehta noted the Trident Probe is a tool that the Water Board recommended for use at this site. He reviewed the schedule for the planning documents and field work and noted the regulatory agencies will review all of the documents for Site YF3. Mr. Mehta then opened the floor to questions.

Mr. Gee asked what is meant by site closure. Ms. Henry said that once a final report is submitted to the regulatory agencies, the Navy might recommend that no further investigation or cleanup is necessary at Site YF3. In that case, if the regulatory agencies agreed, the site would be closed and would no longer be an active petroleum site.

Mr. Gee asked if the Navy can determine where the petroleum contamination originated and if it could be from ship traffic in the area. Mr. Mehta said the petroleum fingerprinting discussed earlier will help determine how old the

petroleum is and its possible origin. Ms. Henry added that the offshore area of NAVSTA TI was investigated and closed with no action required. The offshore area was exposed to the same kinds of ship traffic as Site YF3, so it is unlikely the petroleum onsite originated from ship traffic.

Ms. Smith asked why locating the fresh groundwater flow area is important. Dr. Leather said it is important to understand where groundwater is flowing along the shoreline and could be carrying petroleum to the bay if it is mobile. Previously there were not sufficient data to characterize site-specific conditions. Ms. Henry noted that the regulators told the Navy they would like more information on groundwater flow at the site, so that is a data gap the Navy is attempting to fill with this investigation.

Ms. Smith asked to what depth the sediment samples will be collected. Dr. Leather said pore water samples will be collected from about 2 feet below the sediment surface. That depth was chosen because it is the area that is biologically available, meaning invertebrates in the first 2 feet of sediment that could be consumed by birds would be exposed. In addition, some samples will be collected to a depth of 5 feet to “fingerprint” the petroleum. Mr. Mehta added that YBI is a natural island. The bedrock is fairly shallow and may not permit digging to a depth greater than 3 feet in some areas.

Ms. Smith said the last time a bioaccumulation test was run for Site YF3, in the 1990s, the benthic invertebrates chosen were robust and had a high tolerance for chemicals; they were not indicative of the actual species on site. In addition, the fish species referenced were not native to the site or to the Bay Area, and local organisms should be used instead.

Ms. Henry said she is not familiar with such a test in the 1990s. However, the pertinent guidance on bioaccumulation tests and laboratory protocols have been updated since the 1990s. Ms. Henry noted that, to adhere to the standard protocols for the tests, a laboratory must use specific species of organisms whether they are cultured in the laboratory, purchased from a supplier, or collected in the field. Ms. Smith said the report from 3 or 4 years ago, the SLERA, used non-native fish and non-local animals. Ms. Henry said that SLERA used bioaccumulation factors from a study of fish tissue and sediment concentrations at another sediment site, since no site-specific tissue concentrations or bioaccumulation factors were available for Site YF3. In contrast, the results of the Site YF3-specific bioaccumulation tests, rather than literature values from other studies, will be used in the BERA. Mr. Forman added that the Water Board supports the Navy’s plan and path forward for Site YF3. Ross Steenson (Water Board) confirmed his agency, including a sediment specialist, will review the Navy’s work plan.

Melanie Williams (resident) said she has been living on TI for 18 years. She said the presentation used a lot of technical terms, and she is interested in knowing if she and her family and other residents are safe. She requested the Navy clean up the island so residents can feel comfortable.

Carol Harvey (journalist) asked what is meant by “fingerprinting” the petroleum. Ms. Henry said the concept is that chemical analyses will be run on the samples, and an expert in the interpretation of the data can look at patterns in each sample to compare it with other known petroleum products.

New Business – Document Tracking Sheet and Field Schedule

Mr. Clark presented the Document Tracking Sheet (DTS) (Attachment D) and the Field Schedule (Attachment E). Mr. Clark noted the first nine items on the DTS are related to radiological investigations. Most of them are due to be finalized this calendar year, wrapping up radiological investigations for everything other than Site 12. On the Field Schedule, work is ongoing at several sites. Mr. Clark noted field work will begin at Site YF3, the topic of the presentation, in November.

New Business – Co-Chair Announcements and Future Agenda Items

Mr. Forman reminded the group that future RAB meetings will be held in Building One, located just to the right after entering the main gate of NAVSTA TI.

Community Question and Answer Period

Ms. Harvey said she has a comment about the RAB. She found no restrictions on the length of community comments in the original Department of Defense (DoD) guidelines about RABs. She feels she has not been provided adequate time during meetings to ask questions. Ms. Harvey quoted the DoD guidance, which states the RAB should reflect the diverse interests, values, and needs of the affected community. She noted there are several ethnic groups that she does not see represented in this RAB. Ms. Harvey said she also feels the Navy uses technical terms to discourage community members from attending.

Ms. Harvey asked why there are radiation signs on the fences at Site 31. She also asked why there was no RAB presentation or discussion about the discrete digs being conducted in Site 12.

Mr. Forman said the DoD RAB rule Ms. Harvey was quoting is a general guideline. From there, each RAB creates specific operating guidelines. Regarding diversity, Mr. Forman encouraged Ms. Harvey and other community members to submit a RAB application. There are a diversity of interests on this board, with members who are current residents. Ms. Harvey reiterated that there

is not enough time to speak and she feels that is the reason more community members are not present.

Closing Remarks

Mr. Forman thanked everyone for attending. The next RAB meeting will be Tuesday, October 18, 2016 at Building One. The meeting was adjourned at 8:37 p.m.

16 August 2016 RAB Meeting Handouts

- Attachment A: NAVSTA TI RAB Meeting No. 184 Agenda
- Attachment B: Responses to Questions, Restoration Advisory Board Meeting, Former Naval Station Treasure Island, 21 June 2016
- Attachment C: Site YF3 Petroleum Investigation
- Attachment D: Document Tracking Sheet
- Attachment E: Field Schedule

AGENDA
NAVAL STATION TREASURE ISLAND
ENVIRONMENTAL RESTORATION ADVISORY BOARD MEETING
Tuesday, 16 August 2016
Casa de la Vista Building 271, Treasure Island
MEETING NO. 184

I. WELCOME REMARKS AND AGENDA REVIEW

7:00 – 7:05 Welcome, Introductions
Lead: Keith Forman, Navy Co-Chair

7:05 – 7:10 Agenda Review
Lead: Alice Pilram, Community Co-Chair

II. OLD BUSINESS

7:10 -7:15 RAB Meeting Minutes Approval Meeting 183
Lead: Keith Forman, Navy Co-Chair

7:15 – 7:25 BRAC Cleanup Team Update
Leads: DTSC and Water Board

III. NEW BUSINESS

7:25 – 8:25 Site YF3 Investigation
Leads: Mukesh Mehta, Navy; Dr. Jim Leather, Space and Naval Warfare Systems Center; Katie Henry, Tetra Tech
Presentation Q&A: RAB
Presentation Q&A: Community

8:25 – 8:35 Document Tracking Sheet and Upcoming Field Work Schedule
Lead: Dave Clark

8:35 – 8:45 Co-Chair Announcements and Future Agenda Items
Leads: Alice Pilram and Keith Forman

IV. COMMENTS ON NON-AGENDA ITEMS

8:45 – 9:00 Community Question and Answer Period
Lead: Keith Forman, Navy Co-Chair

9:00 Adjourn

Next Regular Meeting: No September 2016 Meeting

7:00 pm Tuesday, 18 October, 2016

NEW Location: Building One, Treasure Island

Next Treasure Island Citizen's Advisory Board (CAB) Meeting: See the web site for latest dates and times for future meetings: www.sftreasureisland.org

Next Interim RAB Community Member Conference Call: 7:00 p.m. Tuesday, 27 September 2016

Navy BRAC Web Site: <http://www.bracpmo.navy.mil> (click on map for Treasure Island)

Navy San Diego Office Address:

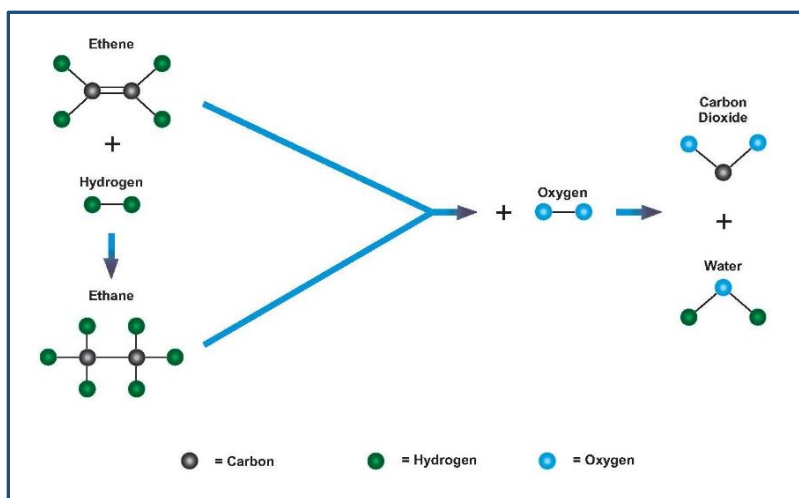
Director
Navy BRAC PMO West
33000 Nixie Way
Building 50, Attention Keith Forman
San Diego, CA 92147

Keith Forman: (619) 524-6073
Local phone number: (415) 308-1458

Responses to Questions
Restoration Advisory Board Meeting
Former Naval Station Treasure Island
21 June 2016

What is the fate of ethene gas once the treatability process is complete?

As described during the presentation, tetrachloroethene (PCE) will break down to non-toxic ethene by a process called reductive dechlorination. After that point, ethene will continue to make chemical reactions into other non-toxic compounds, as illustrated to the right. Ethene (C_2H_4) will form ethane (C_2H_6) with the addition of hydrogen (H_2). Both ethene and ethane will react with oxygen (O_2) to form carbon dioxide (CO_2) and water (H_2O).



What is the fate of the iron compound injected into the ground? And what is the time frame to complete the reaction?

The breakdown of the iron compound (zero valent iron, ZVI) to ferrous iron is as follows in an anaerobic environment like the Site 24 aquifer:



The β -elimination pathway is the predominant in-situ chemical reduction process that occurs with ZVI, as shown on figure to the right. This contaminant degradation pathway results in the production of ferrous iron (Fe^{2+}), chloride (Cl), hydroxyl ion (OH^-), and short-lived intermediates chloroacetylene and acetylene, which are subsequently reduced to ethene and ethane.

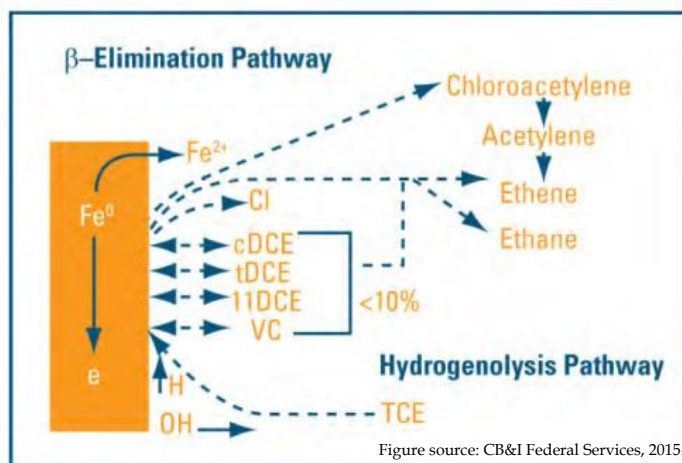


Figure source: CB&I Federal Services, 2015.

Parsons estimates that the microscale ZVI to be emplaced at Site 24 will remain reactive for approximately 2-4 years, after which the majority of the emplaced ZVI will have been converted to non-reactive iron minerals. This estimated microscale ZVI lifespan is based on literature values for granular ZVI (Henderson and Demond, 2007, Gillham et. al., 2010) and compares well with performance data collected from previous pilot-scale ZVI applications conducted by the Navy (Gavaskar et. al., 2005).

References:

- CB&I Federal Services, 2015. Final Work Plan Combined Enhanced Anaerobic Bioremediation/In Situ Chemical Reduction Treatability Study Traffic Island Area, Installation Restoration Site 28 Former Naval Air Station Moffett Field Moffett Field, CA.
- Gavaskar, A., Tatar, L., and Condit, W., 2005. Cost and Performance Report Nanoscale Zero-Valent Iron Technologies for Source Remediation. Naval Facilities Engineering Command, Engineering Service Center Port Hueneme, CA.
- Gillham, R., Vogan, J., Gui, L., Duchene, M., and Son, J., *Iron Barrier Walls for Chlorinated Solvent Remediation*. In Situ Remediation of Chlorinated Solvent Plumes. Ed. Hans F. Stroo and C. Herb Ward. New York, NY: Springer Science and Business Media, 2010.
- Henderson, A.D., and Demond, A. H., 2007. Long-Term Performance of Zero-Valent Iron Permeable Reactive Barriers: A Critical Review. *Environmental Engineering Science* Vol. 24, No 4.

Site YF3 Petroleum Investigation

Former Naval Station Treasure Island
San Francisco, California

RAB Meeting
August 16, 2016

Presentation Overview



- Site Background
- Previous Investigations and Assessments
- Current Investigation Approach
- Project Schedule



Site Background – Yerba Buena Island



- US Government took possession of Yerba Buena Island (YBI) for defensive fortifications in 1866
- 1898 -1997: Used for receiving, housing, and military training
- All property now owned by Treasure Island Development Authority (TIDA) (including Site YF3), CALTRANS, or US Coast Guard

SITE YF3



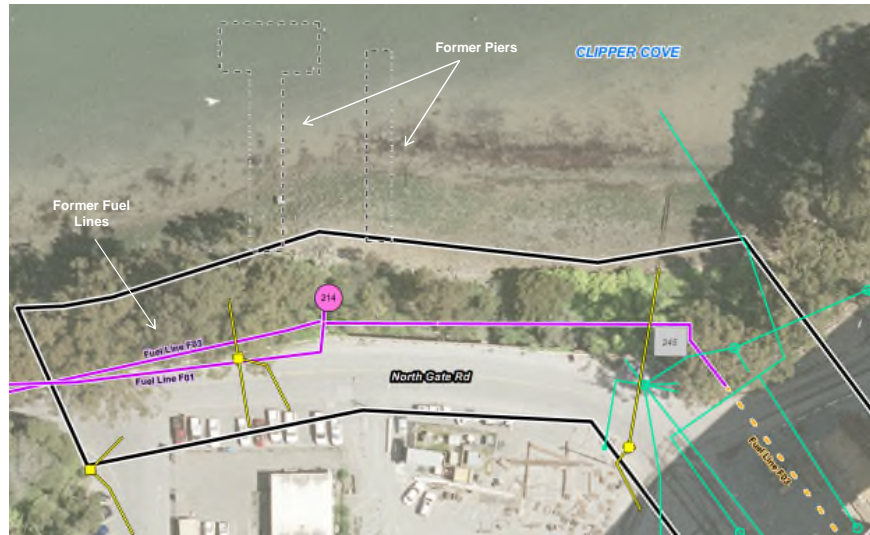
Site Background – Site YF3 Location and History



- Site YF3 included a heating plant (Building 214), dating back to 1945
- Building 214 housed a 10,000 gallon above ground storage tank (AST 214)
- AST 214 contained diesel fuel and was connected to former fuel lines at the site
- Building 214 and AST 214 were demolished and removed in the 1980s and there are no active fuel lines



Site Background – Site YF3 Features



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Site Background – Site YF3 Shoreline



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Previous Investigation Activities



- **2003 Corrective Action Plan (CAP)**

- Summarized investigations of petroleum in soil and groundwater from 1994 to 2000
- Final report recommended additional sampling

- **2013 Field Activities Report (FAR)**

- Summarized March 2012 investigation
- Recommended a screening-level ecological risk assessment (SLERA)

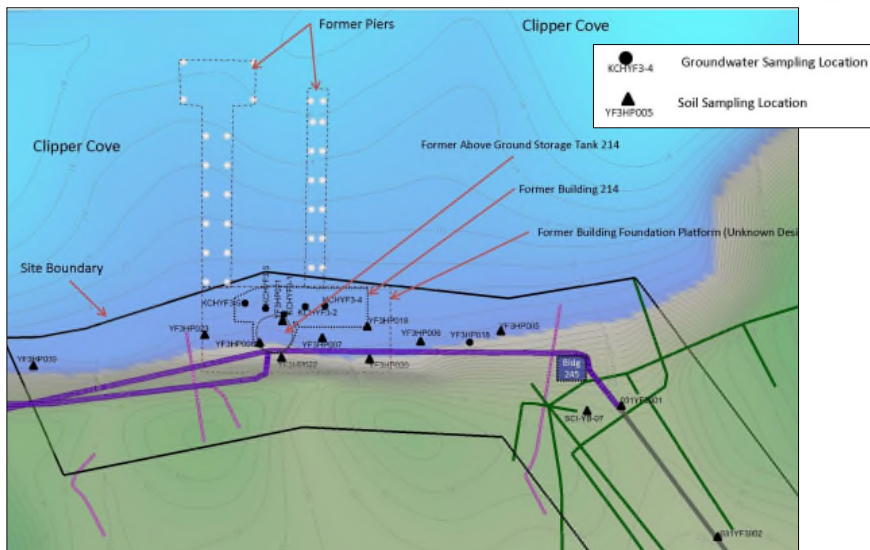


Delivering Equipment by Barge in 2012



Drill Rig Sampling in 2012

Locations Sampled Between 1994 and 2012



Previous Screening-Level Ecological Risk Assessment



- 2015 SLERA and Low-Threat Closure Evaluation
 - Evaluated risk to the environment; there are no human exposure pathways
 - Recommended collecting additional data and conducting a baseline ecological risk assessment (BERA)



Current Shoreline Investigation Approach



Goals of the Investigation:

- Better understand the site, including the nature and extent of petroleum contamination in pore water and sediments in areas beyond those previously investigated
- Assess risk to ecological receptors by conducting a BERA
- Recommend site closure or further action



Field Investigation



A two-phased sampling approach will be used:

- Phase 1 – Trident Probe* survey and pore water sampling
 - Performed by Navy's technical experts from the Space and Naval Warfare Systems Center (SPAWARSYSCEN)
- Phase 2 – Sediment sampling
 - Performed by Battelle/Tetra Tech contractor team

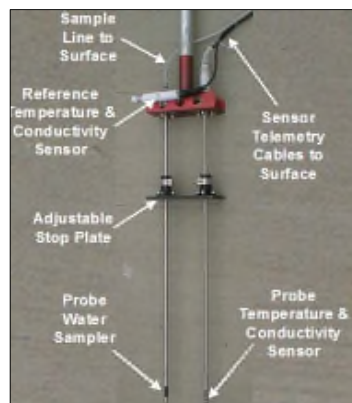
**The Trident Probe was originally developed by the Navy in cooperation with Cornell University*

Field Investigation (Phase 1)



Step 1: Use Trident Probe to evaluate groundwater discharge zones

- Collect real-time conductivity and temperature data via driven probes
- Evaluate data for conductivity and/or temperature patterns



Field Investigation (Phase 1 continued)



Step 2: Use Trident Probe to collect pore water samples from 20 locations

- Sampling line is connected to a low-flow pump to collect samples
- Send samples to laboratory to evaluate the extent of contamination and weathering of petroleum in pore water



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Field Investigation (Phase 2)



• Sediment sampling (approximately one month after pore water sampling, allowing pore water data to be considered in finalizing sediment sampling locations)

- Collect sediment cores in areas that can be accessed and sampled while tide is out using limited access drill rig
- Collect sediment cores in areas inaccessible to drill rig using vibracoring equipment



Limited-access Drilling Equipment



Vibracoring Equipment

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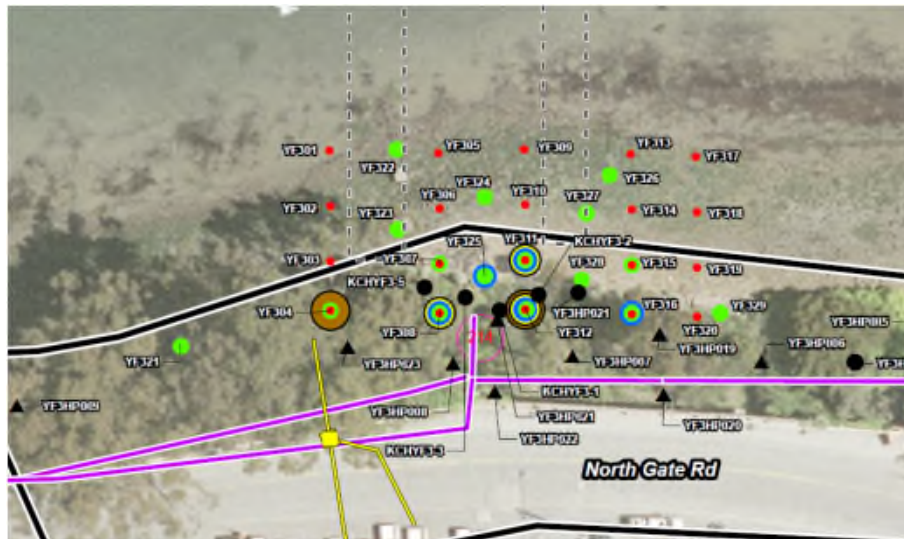
Field Investigation (Phase 2 continued)



Collect sediment samples from 16 locations along the shoreline (and extending landward and seaward) and send samples to laboratory to analyze for:

- All locations {
 - Total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAHs), and volatile organic compounds (VOCs)
- Some Locations {
 - Sediment toxicity
 - Bioaccumulation potential
 - Extent of weathering of petroleum hydrocarbons

New Sampling Locations



Field Investigation Challenges



- **Logistical constraints**

- Tidal cycle could provide only ~4 effective work hours at a time during ebb tide
- Barge required for heavy equipment access/egress
- Must fully mobilize/demobilize per each tidal cycle



- **Safety concerns**

- Mobilization/demobilization activities
- Over-water work
- Uneven, algae-covered cobbles

- **Sample collection**

- Cobbles may act as a barrier to sampling equipment and may extend time required to collect samples



- **Access coordination**

- Site is no longer Navy property, so Navy will coordinate with TIDA to ensure there is no conflict with other activities

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Future Steps



- **Use the analytical chemistry and biological test data (toxicity and bioaccumulation tests) in the BERA to evaluate:**

- Risk to benthic invertebrates (sediment dwelling organisms like clams, worms, crabs, and tiny crustaceans called amphipods) and animals that feed on them



- **Data and risk assessment results will be used to decide what is next for Site YF3**



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Project Schedule



- Draft Work Plan – August/September 2016
- Final Work Plan – October 2016
- Field Investigation – Fall/Winter 2016
- Draft BERA Report - Spring/Summer 2017



Questions?



**Naval Station Treasure Island
Environmental Cleanup Program
Document Tracking Sheet
August 2016 – January 2017**

			DRAFT							RTC				FINAL				
Item	Document Title & Information	C/O/DO	Draft to Agencies		Agency Comments						Preliminary RTCs to Agencies		Resolve and Concur on RTCs		Final to Agencies		Comments	
					Date Due	DISC	WATER BOARD	TIDA/TICD	RAB	OTHER								
Radiological Reports																		
	Scoping Survey of Wastewater Lines Downstream from Former Bldg 233	0006	12/30/15	✓	02/12/16	✓	X	✓			03/28/16	✓	06/17/16	✓	06/24/16	✓		
	RPM: Kimberly Noble																	
	PM: John Baur, Gilbane																	
	Scoping Survey Report for Wastewater Lines - Force Main	0012	05/19/16	✓	06/17/16	✓	X	X			07/22/16	✓	07/29/16	✓	08/16/16	✓		
	RPM: Kimberly Noble																	
	PM: Lisa Bercik, CB&I																	
	FSS Report for Historic Avenue N Storm Drain	0012	05/31/16	✓	07/08/16	X	X	X			NA		NA		07/18/16	✓		
	RPM: Kimberly Noble																	
	PM: John Hackett, CB&I																	
1	FSS Report for Building 233 Catch Basins	0012	06/15/16	✓	07/22/16	✓	X	✓			08/05/16		08/12/16		08/19/16			
	RPM: Kimberly Noble																	
	PM: Lisa Bercik, CB&I																	
2	FSS Report for Site 30/30N/30S	0012	08/29/16		09/28/16						10/12/16		10/19/16		10/28/16			
	RPM: Louie Cardinale																	
	PM: Lisa Bercik, CB&I																	
3	FSS Report for Site 31	0014	10/13/16		11/14/16						11/26/16		12/08/16		12/14/16			
	RPM: Louie Cardinale																	
	PM: Lora Battaglia, CB&I																	
4	FSS Report for Site 6	0025	02/22/16	✓	04/15/16	✓	X	✓	✓		05/20/16	✓	07/22/16	✓	08/24/16			
	RPM: Louie Cardinale																	
	PM: Shanti Montgomery, TtEC																	
5	FSS Report for Site 32A	0006	09/22/16		10/22/16						11/12/16		12/03/16		12/20/16			
	RPM: Kimberly Noble																	
	PM: John Baur, Gilbane																	
6	FSS Report for Site 24 (Building 342, Lot 69)	0012	09/30/16		10/28/16						11/11/16		11/18/16		11/25/16			
	RPM: Kimberly Noble																	
	PM: Lisa Bercik, CB&I																	
7	FSS Report for Northeast Corner	0012	10/28/16		11/25/16						12/09/16		12/16/16		12/23/16			
	RPM: Kimberly Noble																	
	PM: Lisa Bercik, CB&I																	
8	FSS Report for Site 20	0012	10/14/16		11/11/16						11/25/16		12/02/16		12/09/16			
	RPM: Kimberly Noble																	
	PM: Lisa Bercik, CB&I																	
9	FSS Report for Site 32B	TBD	TBD		TBD						TBD		TBD		TBD			
	RPM: TBD																	
	PM: TBD																	
Site 6																		
10	RACR	0003	12/01/16		01/02/17							01/16/17		01/30/17		02/22/17		
	RPM: Kimberly Noble																	
	PM: Ted Tyler, CE2 Kleinfelder																	
Site 12																		
	TCRA WP	0006	03/18/16	✓	04/15/16	✓	✓	✓	✓		06/07/16	✓	06/21/16	✓	07/22/16	✓		
	RPM: Chris Yantos																	
	PM: Ted Tyler, CE2 Kleinfelder																	
11	ROD/RAP (non-SWDA, non-Radiological)	3208	08/01/16	✓	09/16/16						10/14/16		11/07/16		12/05/16			
	RPM: Kimberly Noble																	
	PM: Karen Miller, Helios																	
Site 24																		
	RD/RAWP	0005	03/18/16	✓	05/09/16	✓	X	✓	✓		06/10/16	✓	07/08/16	✓	07/14/16	✓		
	RPM: Mukesh Mehta																	
	PM: Carrie Ross, Parsons																	
12	Soil Gas Data Gaps Summary Report	0030	10/03/16		11/04/16						12/02/16		01/10/17		01/30/17			
	RPM: Mukesh Mehta																	
	PM: Patrick Hamner, Trevet																	
Site YF3																		
13	Intertidal Area Data Gaps Investigation WP	0103	09/02/16		10/04/16						10/18/16		11/01/16		11/11/16			
	RPM: Mukesh Mehta																	
	PM: Andrew Bullard, Battelle																	

**Naval Station Treasure Island
Environmental Cleanup Program
Document Tracking Sheet
August 2016 – January 2017**

			DRAFT								RTC				FINAL			
Item	Document Title & Information	CTO/DO	Draft to Agencies	Agency Comments							Preliminary RTCs to Agencies	Resolve and Concur on RTCs	Final to Agencies	Comments				
				Date Due	DTSC	WATER BOARD	TICD/TICD	RAB	OTHER									
Other Reports																		
14	Finding of Suitability to Transfer (FOST) 5	:	03/11/16	✓	04/11/16	✓	✓	✓			05/09/16	✓	05/16/16	✓	08/31/16			
	RPM: John Hill																	
15	Finding of Suitability to Transfer (FOST) 6	:	08/29/16		09/27/16						10/11/16		10/20/16		10/27/16			
	RPM: John Hill																	
	2016 Basewide LUC Inspection Report	0058	03/23/16	✓	04/22/16	✓	X	✓			05/31/16	✓	06/24/16	✓	07/05/16	✓		
	RPM: Kimberly Noble																	
	PM: Jessica O'Sullivan, TriEco-Tt																	
16	2015 Basewide GW Monitoring Report	0004	06/30/16	✓	07/29/16	✓		✓			08/12/16		09/07/16		09/26/16			
	RPM: Louie Cardinale																	
	PM: Patrick Hamner, Trevet																	
17	2016 Site Management Plan	0058	08/22/16		09/16/16						10/07/16		10/21/16		10/28/16			
	RPM: Kimberly Noble																	
	PM: Jessica O'Sullivan, TriEco-Tt																	
18	Basewide Well Decommissioning WP	0013	09/27/16		11/16/16						12/07/16		12/21/16		01/10/17			
	RPM: Mukesh Mehta																	
	PM: Art Gunter, TTEC																	

✓ Production or review of document is complete. Abbreviations:

X Received notification of no comments or comments deferred to other agency.

Grey shading indicates the document is finalized.

Blue shading indicates agency review comments are due within the next 60 days or are outstanding.

Yellow shading indicates documents that will be issued draft or final within the next 60 days.

CTO/DO = Contract task order/delivery order
DTSC = Department of Toxic Substances Control
EPA = U.S. Environmental Protection Agency
FS = Feasibility study
FSS = Final status survey
LUC = Land use control
NA = Not applicable
NTCRA = Non-time critical removal action
PCSR = Post-construction summary report
PM = Project manager
PP = Proposed plan
RACR = Remedial action completion report
RAP = Remedial action plan
RAWP = Remedial action work plan

RD = Remedial design
ROD = Record of decision
RPM = Remedial project manager
RTC = Response to comments
SAP = Sampling and analysis plan
SWDA = Solid waste disposal area
TBD = To be determined
TCRA = Time-critical removal action
TICD = Treasure Island Community Developers
TIDA = Treasure Island Development Authority
TPH = Total petroleum hydrocarbons
TSP = Task specific plan
Water Board = Regional Water Quality Control Board
WP = Work plan

**Naval Station Treasure Island
Navy Field Schedule
August 2016 – January 2017**

Item	Activity and Investigation Area	Field Dates	Navy RPM (Contractor)	Complete
Site 6				
1	Remedial Action	Start: 05/02/16 Finish: 09/30/16	Kimberly Noble (CE2 Kleinfelder)	
Site 12				
2	Phase III Non-Time Critical Removal Action	Start: 05/12/15 Finish: 12/21/16	Chris Yantos (CB&I)	
3	Time Critical Removal Action (Gateview, Discrete Areas, Halyburton)	Start: 07/25/16 Finish: 03/31/17	Chris Yantos (CE2 Kleinfelder)	
Site 24				
4	Remedial Action	Start: 08/08/16 Finish: 12/23/16	Mukesh Mehta (Parsons)	
Site 31				
5	Soil Sampling and Surveys - Additional Field Work	Start: 05/09/16 Finish: 08/19/16	Louie Cardinale (CB&I)	
Site YF3				
6	Intertidal Data Gaps Sampling (Trident Probe Survey and Pore Water Collection)	Start: 11/11/16 Finish: 11/18/16	Mukesh Mehta (SPAWARSYCEN Pacific)	
7	Intertidal Data Gaps Sampling (Onshore and Offshore Sediment Sampling)	Start: 12/19/16 Finish: 12/30/16	Mukesh Mehta (Battelle Team)	
Other				
8	Basewide Well Decommissioning	Start: 11/29/16 Finish: 01/20/17	Mukesh Mehta (TtEC)	

Abbreviations:

✓ Field work is complete
RPM Remedial project manager
TBD To be determined

Yellow shading indicates field activities that will start or finish within the next 60 days.

Grey shading indicates field activities are complete.